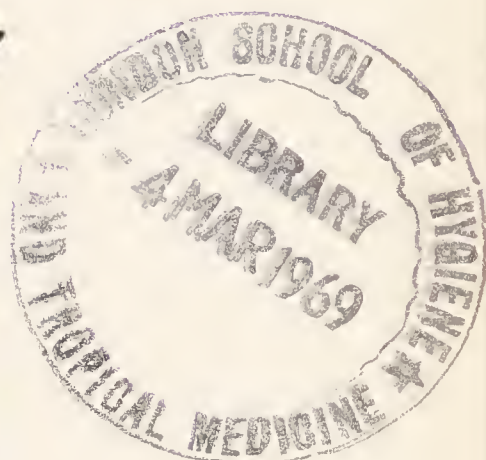


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# LIVERPOOL



## PORT HEALTH AUTHORITY ANNUAL REPORT 1966

PROFESSOR ANDREW B. SEMPLE, C.B.E., V.R.D., M.D., D.P.H.,  
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CITY AND PORT OF LIVERPOOL.



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# PORT HEALTH AUTHORITY OF LIVERPOOL

## REPORT FOR THE YEAR 1966

BY THE  
MEDICAL OFFICER OF HEALTH

This is the 94th Annual Report upon the work of the Liverpool Port Health Authority.

The Permanent Constitution of the Liverpool Port Health Authority defines the limits of the Port for health purposes, as coincident with the limits laid down by H.M. Customs. The boundaries of the Port of Liverpool are laid down in "The Appointment of the Port of Liverpool Order, 1956".

### SECTION I STAFF

TABLE A

Name of Officer	Nature of Appointment	Date of Appointment	Qualifications	Any other Appointments held
Professor Andrew B. Semple ... ..	Medical Officer of Health	5.12.52	C.B.E., V.R.D., M.D., Ch.B., D.P.H.	Medical Officer of Health, City of Liverpool. Professor of Public Health, University of Liverpool. Supervising Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act.
Dr. J. B. Meredith Davies	Deputy Medical Officer of Health	1.5.53	M.D., B.S., D.P.H.	Deputy Medical Officer of Health, City of Liverpool. Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act. Lecturer in Public Health, University of Liverpool.



Name of Officer	Nature of Appointment	Date of Appointment	Qualifications	Any other Appointments held
Dr. A. J. Graham	... Principal Medical Officer	1.10.64	L.R.C.P., L.R.C.S.(Ed.), L.R.F.P.S.(Glas). D.P.H.	Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act. Lecturer in Meat and Food Inspection Course, Liverpool University School of Hygiene.
Dr. T. A. Conroy	... Assistant Medical Officer	1.3.65	M.B., B.Ch., B.A.O., D.P.H.	Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act.
Dr. C. F. W. Fairfax...	Boarding Medical Officer (part-time)	1.5.62	M.B., B.S., D.P.H.	Principal Medical Officer (Epidemiology), City of Liverpool, Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act. Part-time lecturer in Public Health, Liverpool University.
Dr. S. M. Jamaludeen	Boarding Medical Officer (part-time)	1.7.64 died 27.6.66	L.M.S.S.A., D.T.M. & H. D.P.H.	Assistant Medical Officer, City of Liverpool. Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act.
Dr. J. C. Udechuku	... Boarding Medical Officer (part-time)	17.1.66	M.B., B.S., D.P.H., L.R.C.P., M.R.C.S. (Eng.), D.C.H. D.T.M. & H.	Assistant Medical Officer, City of Liverpool. Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act.
Dr. D. M. O. Lowry...	Boarding Medical Officer (part-time)	12.12.66	M.A. (Cantab.) M.R.C.S., L.R.C.P., D.P.H., D.C.H., D.T.M. & H.	Assistant Medical Officer, City of Liverpool. Medical Inspector under the Aliens Order and the Commonwealth Immigrants Act.

#### PORT INSPECTORATE

Messrs. E. M. Dutton, J. G. McCoy, G. A. Williams, H. Rodgers, A. C. Gladdish, C. Kitchen, E. Moon, W. McGeough, D. W. Thomas, B. D. Jones. New inspectors who commenced on 1st August 1966 are Messrs. E. Calvert, G. R. Davies, B. F. P. McCann and R. E. Wilcoxson.

### AMALGAMATION OF THE PORT FOOD AND PORT HEALTH SECTIONS

A report on the public health inspectorate was considered by the Departmental Establishment Sub-Committee on 17th January, 1966, when it was

decided, as a matter of urgency, to undertake a review of the salary structure of the port inspectorate, and the need to make a substantial increase in the number of inspectors employed.

After many consultations between officers of the Health Department and the Establishment Officer, it was agreed that, as far as the Port was concerned a severe staffing problem existed. This crisis was met by re-organizing and amalgamating the Port Health and Port Food Sections and by introducing a new salary structure. Advertisements were published and no difficulty was experienced in filling the vacant positions thus bringing the inspectorial staff to full strength. The new inspectorate consists of a Chief Port Health Inspector, a Deputy Chief Inspector and 12 inspectors, who are now in receipt of the salary grade APT IV/“ A ”.

Under the new system every inspector will be familiar with all aspects of port work including port food duties and port health duties. In August, the first steps were taken, the idea being that inspectors would undertake new duties for two months. Progress continued satisfactorily up to the end of the year, and it is felt that, very shortly, the amalgamation will have been smoothly completed.

I would like to take the opportunity here to thank the inspectors, many of whom have been with me for a number of years, for I have always appreciated their loyalty and great work especially during the last few difficult months.

I would also express my appreciation to all the Boarding Medical Officers who have also had a hard year due to depleted staff and other difficulties.

### **Dr. S. M. JAMALUDEEN**

It is with great sorrow and much regret that we report the death of Dr. S. M. Jamaludeen, L.M.S.S.A., D.T.M. & H., D.P.H., who died after a short illness.

Dr. Jamaludeen had worked with this Authority from 1st July, 1964, as a rota doctor in the inspection and medical clearance of ships in the river, and had announced just before his death that he was about to return to his own country.

We extend our deepest sympathies to Mrs. Jamaludeen and her three daughters.



## SECTION II

TABLE B

AMOUNT OF SHIPPING ENTERING THE DISTRICT DURING THE YEAR 1966

Ships from	Number	Tonnage	Number Inspected		Number of ships reported as having, or having had during the voyage, infectious disease on board
			By Medical Officers	By Port Health Inspectors	
Foreign Ports...	6,453	16,497,143	354	3,364	167
Coastwise ...	4,278	4,057,616	—	177	—
Total ...	10,731	20,554,759	354	3,541	167

## SECTION III

TABLE C

CHARACTER OF SHIPPING AND TRADE DURING THE YEAR

## PASSENGER TRAFFIC

No. of passengers INWARDS	No. of passengers OUTWARDS
170,200	178,951

(These figures do not include traffic between Liverpool and Northern Ireland.)

## CARGO TRAFFIC

Principal Imports	Principal Exports
Flour, grain, etc., sugar, molasses, etc., wood, fruit and vegetables, cotton, ores and scraps, meat, feeding stuffs for animals, tea, butter, cheese, eggs, etc., cocoa, seeds or nuts for expressing oils, copper, coal, oils, fats, resins and gums, hemp, jute, sisal, etc., hides and skins, tobacco, rubber.	Iron and steel manufactures, chemicals and sodas, salt, machinery, pottery, glass and glassware, sugar, molasses, etc., flour, grain, etc., copper, brass, tin, etc., soap and oils, etc., ale, beer, wine, spirits, etc., cement, electrical goods, etc., paper, cardboard, etc., vehicles, aircraft, motor cars, locomotives, etc., bricks, cutlery, hardware, etc., fine goods.

Ships arrive in Liverpool from ports all over the world.

## SECTION IV

### INLAND BARGE TRAFFIC

The number of barges plying in and about the Port of Liverpool is approximately 100, representing an estimated total of 12,000 tons.

#### **CANAL BOATS (Public Health Act, 1936, Part X)**

The number of canal boats in the Liverpool Register totals 34.

Only some of these are used as dwellings, the majority being used as "Day" boats and none of the crews sleep aboard.

No. of boats inspected...	...	...	...	...	32
No. of boats with contraventions	...	...	...	...	1
No. of contraventions...	...	...	...	...	1
No. of contraventions corrected	...	...	...	...	1
No. of boats inspected for registration	...	...	...	...	Nil

## SECTION V

### WATER SUPPLY

There has been no change in the source of water supply for either the seaport or the airport.

During the year a total of 182 samples was taken from the tanks of 27 ships for bacteriological examination, and 48 samples were considered to be unsatisfactory and appropriate action was taken. There are no water boats in use on the River Mersey but several tug boats are equipped to carry water. These are used in special circumstances only. Good co-operation with Ministry of Transport officials has been maintained.

## SECTION VI

### PUBLIC HEALTH (SHIPS) REGULATIONS, 1966

On 1st April this year the new Public Health (Ships) Regulations, 1966, came into operation. They make minor amendments which ensure conformity with the current International Sanitary Regulations of the World Health Organization. Part 1 contains definitions of terms used in the Regulations and provision is made for a new form of international vaccination certificate. Part 2 as before provides for the enforcement and execution of the Regulations of the Port Health Authorities, and Part 3 which relates to incoming ships, provides for radio messages to be sent and signals to be issued in certain circumstances. A new part has been



added which requires a person leaving a ship to state his destination when there is grave danger to public health through an outbreak of infectious disease. Part 3, Regulation 19(4), contains a new provision for the repetition of deratting measures where earlier measures seem to have been ineffective.

As stated below, when discussing the new form of our Maritime Declaration of Health, the list of infected areas has been changed and now reads: Brazil, India, Ghana, Colombia, China, Pakistan, Nigeria, Indo China, Congo, Liberia, Cameroon and the ports of Rangoon and Dar-Es-Salaam.

Alterations to the list will always be announced at the earliest possible date.

The Maritime Declaration of Health form used in Liverpool was re-designed during the year and changes were made (which are reproduced below) on pages 3 and 4 in the hope that more clear and concise information might be given to Masters of all vessels, and it is thought that if the instructions on page 4 are followed exactly, the clearance of ships will be carried out with the greatest speed, but failure to follow the instructions will almost inevitably result in delay.

### **THE PUBLIC HEALTH (AIRCRAFT) REGULATIONS, 1966**

These regulations came into operation on 1st April, 1966, and consolidated the Public Health (Aircraft) Regulations, 1952 to 1963, which provided for public health control of aircraft arriving in or leaving England and Wales. They also make minor amendments which ensure uniformity with the current International Sanitary Regulations of the World Health Assembly and continue public health control at aerodromes transferred by the Airport Authority Act, 1965, from the Ministry of Aviation to the British Airports Authority.

Liverpool Port Health Authority is responsible for enforcing the above Regulations in the airport at Speke and it is of note that a great deal of money has been spent by the Corporation recently on a new runway.

On 7th May His Royal Highness, Prince Philip, opened this runway which has many revolutionary features and for the benefit of all those who enquired, I have included here all the main details given to me by Mr. Keith Porter, the Airport Director, to whom I am indebted for this information.



“The new runway is 7,500 ft. long and is orientated east-west, and has a parallel taxiway to the north of the runway. The runway is 150 ft. wide and comprises 4 ins. of hot rolled asphalt (including  $\frac{3}{4}$ -in. friction course surface), 9 ins. continuously reinforced pavement quality concrete and 4 ins. dry-lean mix concrete. Along each side of the runway are paved shoulders 25 ft. wide, and these are surfaced with 3 ins. Bitmac on 6 ins. of lean concrete on hard filling. The Bitmac is sealed with red Schlamme. The parallel taxiway is 75 ft. wide, and comprises 12 ins. of reinforced pavement quality concrete with contraction joints at 50 ft. intervals on 4 ins. dry-lean mix concrete.

An additional sub-base of stone 6 ins. thick was found necessary under the runway over quite large areas because of poor site conditions, and because in some areas extensive deep excavation of bad ground and subsequent replacement with hard filling, was found necessary.

The special friction course is an open grade macadam surface. This permits the free penetration of surface water to the underlying layer, which is a densely graded impervious wearing course of high stability. It is necessary also, of course, with this technique, for the area to have good drainage. There is not only free penetration of the top surface by water, but the water drains rapidly on the underlying surface, and flows quickly to the drainage channels at the side of the runway. So far as I am aware, this is the only Civil Airport in the world to have such treatment and, of course, can only be laid normally with new surfaces or with a well established non-permeable underlying surface.

Allowance has been made for the demanding physical characteristics laid down by I.C.A.O. The runway has a 97% use capability with a 20 knot crosswind component. The maximum longitudinal slope anywhere on the runway is 1:200, and the transition from one slope to another was accomplished with a maximum radius of curvature of 240,000 ft. Transverse slopes to either side of the crown do not exceed 1.5%. It has one of the most up-to-date approach, touch down zone, centre-line and edge lighting systems in the world, and is equipped for landing to the west with Cat. II Instrument Landing System.

Although the specification called for a Load Classification Number of 75, in practice it looks as if this figure will be nearer 100, which makes it

capable of carrying the heaviest aircraft flying today, and for many years to come."

THE MARITIME DECLARATION OF HEALTH FORM

OWNERS OR AGENTS .....

CARGO .....

NOTE: If there has been, in the last FOUR WEEKS, a case of any of the following diseases:

Chickenpox	German Measles	Plague	Smallpox
Cholera	Infective Jaundice	Pneumonia	Tuberculosis
Diphtheria	Measles	Poliomyelitis	Typhoid
Dysentery	Meningitis	Relapsing Fever	Typhus
Encephalitis	Mumps	Scarlet Fever	Yellow Fever

details must be entered in the Schedule (page 2) and the bedding concerned should be kept apart from other linen and will be collected, disinfected and returned to the ship by the Port Health Authority.

NUMBER OF PERSONS ON BOARD:—

(a) CREW

British	...	...	...	...	...	...	...	...	...	_____
Commonwealth	...	...	...	...	...	...	...	...	...	_____
Aliens	...	...	...	...	...	...	...	...	...	_____

(b) PASSENGERS

British	...	...	...	...	...	...	...	...	...	_____
Commonwealth	...	...	...	...	...	...	...	...	...	_____
Aliens	...	...	...	...	...	...	...	...	...	_____

(c) OTHER PERSONS ON BOARD

D.B.S.	...	...	...	...	...	...	...	...	...	_____
Shipping Agents, Passenger Pilots, etc.	...	...	...	...	...	...	...	...	...	_____
TOTAL	...	...	...	...	...	...	...	...	...	_____

LISTS MUST BE AVAILABLE (ON ARRIVAL) OF ALL CREW AND PASSENGERS, WITH THEIR IMMEDIATE ADDRESSES AND DATES OF LAST VACCINATION AGAINST SMALLPOX MUST BE SHOWN.

FOR OFFICIAL USE ONLY

Cleared by Dr. ....

How dealt with {

River  
Prince's Stage  
In Dock

Bound {

LIVERPOOL NORTH  
" SOUTH  
" GARSTON  
BIRKENHEAD  
TRANMERE OIL TERMINAL  
BROMBOROUGH  
Q.E. II DOCK  
MANCHESTER SHIP CANAL

Time.....a.m./p.m.



## THE MARITIME DECLARATION OF HEALTH FORM

### INSTRUCTIONS

1. **THE MASTER** of a ship approaching LIVERPOOL from a foreign port must
  - (a) Ascertain the health of all persons on board.
  - (b) Complete and sign this MARITIME DECLARATION OF HEALTH.
  - (c) Hand this DECLARATION to the CUSTOMS OFFICER or PORT MEDICAL OFFICER, whoever first boards the ship.
2. If the answer to any question on page 1 is "YES", or if the ship has called during the last FOUR WEEKS at any ports in
 

BRAZIL	INDIA	GHANA	COLOMBIA
CHINA	PAKISTAN	NIGERIA	and the ports of
INDO CHINA	CONGO	LIBERIA	RANGOON and
		CAMEROON	DAR-ES-SALAAM

#### THE MASTER MUST:

- (a) Send a radio message, not less than 4 hours and not more than 12 hours before arrival, to "PORTELTH, LIVERPOOL" giving:—
  - NAME OF SHIP**
  - DATE OF DEPARTURE FROM LAST INFECTED PORT**
  - EXPECTED TIME OF ARRIVAL**
  - NUMBER, AGES AND SEX OF PERSONS WITH INFECTIOUS DISEASE.**
- (b) **SIGNAL**—Before reaching the Bar Lightship
  - BY DAY—FLY THE FLAG SIGNAL "L. I. M."
  - BY NIGHT—Show a RED LIGHT over a WHITE LIGHT.
3. If the answers to all the questions on page 1 are "NO," and the vessel has not called during the last four weeks at any of the Ports mentioned above, the Master need not communicate with the Port Health Authority unless instructed to do so by a Customs Officer.

The MASTER is responsible for compliance with Article 18 (1) of the Public Health (Ships) Regulations, 1952, which states that "On arrival of a ship from any foreign port or from any infected area which is not a foreign port, no person other than a pilot, a customs officer, an immigration officer, or an authorised officer shall, without the permission of the medical officer, board or leave the ship until it is free from control under these regulations, and the master shall take all steps necessary to secure compliance with this provision."

ANDREW B. SEMPLE,  
*Medical Officer of Health,  
 Port of Liverpool.*

## SECTION VII

### SMALLPOX

No cases of smallpox were landed in the Port during the year and no report was received of any case being landed elsewhere from a ship destined for Liverpool.

Smallpox consultants available are:—

Professor Andrew B. Semple, Health Department, Hatton Garden, Liverpool, 3.

Dr. T. L. Hobday, 43 Ullet Road, Liverpool 17.

Professor A. W. Downie, Department of Bacteriology, The University, Liverpool 3.

Dr. A. B. Christie, Fazakerley Hospital, Longmoor Lane, Liverpool 9.

Facilities for laboratory diagnosis of smallpox are available in the Liverpool University Bacteriological Department.

## **SECTION VIII**

### **VENEREAL DISEASE**

All cases reported were referred for treatment to the Seamen's Dispensary.

Small cards showing the location of treatment centres and times of consultations are issued, where appropriate, by medical officers and health inspectors.

## **SECTION IX**

### **CASES OF NOTIFIABLE AND OTHER INFECTIOUS DISEASES IN SHIPS**

No cases of cholera, plague, smallpox, typhus, yellow fever, or relapsing fever occurred in the port during 1966.

#### **Typhoid Fever**

The *Potosi* arrived from South America on 16th February, 1966. A member of the crew had been landed in Ponta Delgado (Azores) on 12th February as a case of suspected typhoid fever which was later confirmed by the shipping company. Onset was on 2nd February. Disinfection was carried out and samples of water and specimens of faeces and urine submitted for bacteriological examination. Three samples of water proved to be satisfactory, and all specimens of faeces and urine taken proved to be negative.

#### **Paratyphoid Fever and Dysentery**

The vessel *Scottish Prince* arrived in August from the Mediterranean. One of the crew, an engineer, was ill on arrival and was removed to



Clatterbridge Hospital where he was found to be suffering from Paratyphoid B. The members of the crew had left the ship and gone to their own homes so it was necessary to inform the medical officers of health of the areas concerned. Faecal specimens were obtained from the crew members who had remained on board. One of these was found to be a dysentery carrier (*shigella flexneri*). He was treated successfully. Another crew member, who lived in Hampshire, was found to be a case of Paratyphoid B and information was received from the medical officer of health of the area that the patient was being treated.

The vessel *Crosbian* arrived in Liverpool from Portugal on 21st August. During the voyage an outbreak of diarrhoea had occurred and at the time of arrival some of the crew were still affected. Investigations showed that the cook had *shigella sonnei* in his stools. Specimens from the rest of the crew were negative. Samples of water and food were found to be satisfactory. By arrangement with the general practitioner concerned the cook was treated and no further cases were reported.

The m.v. *Kaduna* arrived from Sapele via Avonmouth on 12th September. Swansea Port Health Authority reported that a member of the crew, who had been admitted to Hill House Hospital, Swansea, on 10th September, was found to be suffering from dysentery. Disinfection was carried out and samples of water, and specimens of faeces were submitted for bacteriological examination. No organisms of the salmonella or dysentery groups were found. The vessel sailed to Belfast and Glasgow on 13th September.

The m.v. *Mauritanie* arrived from Tsingkiang via Tangier on 7th October. The master reported that a case of typhoid fever had been discharged to hospital at Tsingkiang on 8th August. Onset was on 7th August. All members of the crew had been inoculated against typhoid fever, and the disinfection had been carried out by the Tsingkiang Port Health Authority. Specimens of faeces were taken from the crew and submitted for bacteriological examination. Two of these specimens were found to be positive for *shigella flexneri*. As the vessel had sailed for London on 14th October, the Medical Officer of Health for London was informed.

The m.v. *Nopal Sky* arrived from Phillipville on 14th November. A member of the crew was reported to be suffering from diarrhoea. A specimen of faeces and samples of water were submitted for bacteriological examination. The sample of faeces proved to be positive for shigella sonne. The patient was allowed to remain on board and warned to take precautions in personal hygiene. The vessel sailed for Glasgow on 18th November, and the Medical Officer of Health for Glasgow was informed.

The vessel *Pearl Island* arrived on 23rd October and the Chief Steward was ill, complaining of abdominal pains. He was removed to hospital where specimens of his stools showed the presence of salmonellae. Samples were taken from the rest of the crew and four other crew members were also found to have salmonellae in their stools. By the time these last results were available the ship had left Liverpool for Antwerp. The Port Health Authority at Antwerp were informed by air mail and stated later that the vessel was inspected on arrival and the affected members were treated.

### **Food Poisoning**

The s.s. *South Africa Star* arrived from Brisbane via London and Dunkirk on 21st January. On 20th February nine members of the crew were reported to be suffering from suspected food poisoning. Seven samples of food were submitted for bacteriological examination. The catering premises were inspected, and the staff were examined by Port Health Officials, but there was no opportunity for further action as the vessel sailed for Glasgow on the same day. No organisms of the salmonella or dysentery groups were found in the food samples, although all had staph. pyogenes present in small numbers. The Medical Officer of Health for Glasgow was informed.

The m.v. *Salimiah* arrived from Bahrein via Hamburg on 12th December. Several cases of diarrhoea were reported between 5th and 12th December and two cases of diarrhoea and vomiting were still on board. Samples of water and specimens of faeces were submitted for bacteriological examination. The ship's water supply was chlorinated. No organisms of the salmonella or dysentery groups were isolated.

### **Diarrhoea in Ships**

The diarrhoea in ships, perhaps better known to sailors as "Gypsy tummy" or "Karachi tummy" is really an acute diarrhoeal disease, a



clinical syndrome of varied etiology, in large part infective and includes the specific intestinal diseases. Diarrhoea and often fever are the main manifestations and the disease includes shigellosis, salmonellosis and amoebiasis, and also infections with enteropathogenic *Escherichia coli*, enteroviruses, protozoa and helminths. More often than not however no definable infectious agent can be identified.

Despite failure to isolate infectious agents from most cases, the spread of this disease in groups of people such as crews of ships and families ashore, clearly suggests that most cases have an infectious origin. The diarrhoea found in ships is well known. Generally it lasts for 1-3 days with onset of loose watery copious stools and variable symptoms of acute gastro-enteritis such as nausea, vomiting, abdominal cramps, chills and profound malaise. Often a known infective agent can be isolated when the patient can be seen at the height of the illness and specimens taken, but frequently nothing can be found.

Control measures are based upon the probable faecal oral transmission of infectious agents, by person to person contact and this diarrhoea need not be accepted as an inevitable accompaniment of travel. Constant care in the use of clean water, avoiding badly prepared raw green vegetables, peeling fruit and eating well cooked meat will afford a high degree of protection. Badly prepared meat pies, poultry, raw sausages, lightly cooked food containing egg or egg products are often the cause. Foods contaminated by rodent faeces or by an infected food handler or by utensils, working surfaces or tables previously used for contaminated food such as egg products, can often be shown to be contaminated by the causative organisms.

Good personal hygiene must be practised by everyone on the ship especially those engaged in food preparation, and all cuts and other wounds of the hands of any cook should be covered by a waterproof dressing immediately, following which he should cease, for the time being at least, to serve food.

#### TABLE D

The number of cases of infectious disease landed from vessels arriving at Liverpool and those occurring in Liverpool-bound ships which were disposed of before arrival, are shown in the following tables:

CASES OF INFECTIOUS SICKNESS LANDED FROM VESSELS  
DURING 1966

Diseases	No. of Cases during Year		No. of Vessels concerned
	Passengers	Crew	
<b>Quarantinable Diseases</b>			
Cholera ... ..	—	—	—
Plague ... ..	—	—	—
Smallpox ... ..	—	—	—
Typhus Fever ... ..	—	—	—
Yellow Fever ... ..	—	—	—
Relapsing Fever ... ..	—	—	—
<b>Other Infectious Diseases</b>			
Chickenpox ... ..	2	4	6
Dysentery ... ..	—	6	5
Enteric Fever ... ..	—	1	1
Food poisoning ... ..	—	13	2
Gastro-enteritis ... ..	—	8	4
Infective Hepatitis ... ..	1	1	2
Influenza ... ..	2	1	2
Leprosy... ..	—	2	2
Malaria ... ..	1	6	5
Measles... ..	7	—	4
Mumps ... ..	2	—	2
Pneumonia ... ..	—	2	2
Pyrexia (of unknown origin)... ..	—	4	4
Tuberculosis ... ..	2	3	4
Totals ... ..	17	51	45



CASES OF INFECTIOUS SICKNESS OCCURRING IN VESSELS DURING THE VOYAGE  
BUT DISPOSED OF PRIOR TO ARRIVAL. YEAR 1966

Diseases	No. of Cases during Year		No. of Vessels concerned
	Passengers	Crew	
<b>Quarantinable Diseases</b>			
Cholera... ..	—	—	—
Plague ... ..	—	—	—
Smallpox ... ..	—	—	—
Typhus Fever ... ..	—	—	—
Yellow Fever ... ..	—	—	—
Relapsing Fever ... ..	—	—	—
<b>Other Infectious Diseases</b>			
Chickenpox ... ..	2	7	2
Dysentery ... ..	—	2	2
Enteric Fever ... ..	—	2	2
German Measles ... ..	—	1	1
Infective Hepatitis ... ..	—	2	2
Influenza ... ..	—	1	1
Malaria ... ..	1	2	3
Measles... ..	4	—	4
Pneumonia ... ..	1	1	2
Pyrexia (of unknown origin) ... ..	—	1	1
Tuberculosis ... ..	—	1	1
Totals ... ..	8	20	21

## CASES LANDED FROM COASTWISE VESSELS

Diseases	No. of Cases during Year		No. of Vessels concerned
	Passengers	Crew	
German Measles     ...     ...     ...     ...	—	1	1

**DISINFECTION**

During the year 35 disinfections after infectious sickness were carried out by officers of this Authority. Infected bedding was removed by the City staff for steam disinfection.

**SECTION X**  
**OBSERVATIONS ON THE OCCURRENCE OF**  
**MALARIA IN SHIPS**

Ten cases of malaria or suspected malaria in eight ships were notified.

**SECTION XI**  
**MEASURES TAKEN AGAINST SHIPS INFECTED WITH**  
**OR SUSPECTED FOR PLAGUE**

No rodent plague was discovered either in ships or ashore. Eight suspected rats proved to be negative.

**SECTION XII**  
**MEASURES AGAINST RODENTS IN SHIPS FROM FOREIGN**  
**PORTS**

The Port is divided into districts and a port health inspector, a rat-searcher and a rat-catcher are allotted to each district. The rat-searcher looks for evidence of rats and detects rat harbourages and the rat-catcher deals with any infestation found, and in addition obtains samples of the rat population for bacteriological examination. Special precautions are taken in or near ships trading with plague-infected ports. Each rodent operative is given specific tasks daily to be carried out at set times, and the work is checked by a senior inspector.



## **RATGUARDS**

Foreign-going ships, whether arriving from abroad, or proceeding coast-wise are visited as soon as possible after arrival by a port health inspector, and advised to fit ratguards on all moorings.

### **1. Procedure for Inspection of Ships for Rats**

(a) Enquiries and inspection by port health inspectors.

(b) Routine searching by rat-searchers, who search ships on arrival, and also make periodic revisits during the discharge of cargo. Coastal shipping and harbour craft are searched periodically.

(c) When application is made for a deratting or deratting exemption certificate the ship, when empty, is searched throughout.

(d) Immediate investigation is undertaken when reports of infestation are received from shipowners, agents, ship masters and officers, dock-workers or privately employed rat-catchers.

### **2. Arrangements for the bacteriological or pathological examination of rodents with special reference to rodent plague**

Any rats suspected of being plague infected, or any rats found dead without visible marks of violence are dipped in paraffin, labelled, and taken immediately for bacteriological examination.

Foreign-going ships entering the port are visited by a port health inspector and a rodent operative as soon as possible after docking. Traps are set in all ships from plague-infected ports and also in other foreign-going ships where rat evidence is detected or reported.

### **3. Arrangements in the district for deratting ships, the methods used, and if done by a commercial contract, the name of the contractor.**

Agents or owners of ships found to be infested with rats are, in their own interests, advised to take appropriate action, even if the ship holds a valid international deratting or deratting exemption certificate, or rodent control certificate.

Many of the larger shipping companies employ rodent operatives under private contract, whilst others employ rodent exterminators as required.

## Deratting in ships

- (a) Routine trapping by port health rodent operatives.
- (b) Trapping and/or poisoning by rodent operatives, employed by shipowners or agents.
- (c) Fumigation with hydro-cyanic acid gas or sulphur dioxide.

## Principal Contractors

The principal contractors carrying out rodent exterminations and fumigations in the port, approved by the Port Health Authority are:

- |                  |   |
|------------------|---|
| (a) Rat-catching | Rentokil Laboratories Limited.<br>Hivey Fumigation Company.<br>A. Sewell. |
| (b) Fumigations  | Rentokil Laboratories Limited.<br>Hivey Fumigation Company.               |

## Deratting on dock premises

- (a) Routine trapping and poisoning by port health rodent operatives.
- (b) Routine trapping and poisoning by rodent operatives employed by the Mersey Docks and Harbour Board.
- (c) Trapping and poisoning by private contractors employed by shipping companies and warehouse owners.

#### 4. Rat Proofing

When temporary or permanent harbourage is discovered in ships, the master and the owners (or agents), are informed and advised how to eliminate it. Before a deratting or deratting exemption certificate is issued an effort is made to ensure that a ship is made reasonably rat proof. Any rat harbourage present is entered on the certificate. Temporary harbourage consisting of accumulations of dunnage, wood, cargo mats and stores of all kinds, is very prevalent and receives constant attention.

### TABLE E

# RATS DESTROYED

### Rodents Destroyed During the Year 1966 in Ships from Foreign Ports

Category	Number
Black Rats ... ..	189
Brown Rats ... ..	1
Species not known ... ..	—
Sent for examination ... ..	59
Infected with plague ... ..	—



**Rodents Destroyed During the Year 1966 in Docks, Quays,  
Wharves and Warehouses**

Category										Number
Black Rats	...	...	...	...	...	...	...	...	...	705
Brown Rats	...	...	...	...	...	...	...	...	...	520
Species not known	...	...	...	...	...	...	...	...	...	—
Sent for examination	...	...	...	...	...	...	...	...	...	93
Infected with plague	...	...	...	...	...	...	...	...	...	—

Number of mice destroyed in vessels	...	...	...	...	186
Number of mice destroyed on quays	...	...	...	...	640
Number of mice examined from vessels and quays	...	...	...	...	44

In addition to the above, 2,681 rats and 293 mice were caught and destroyed by the Dock Board rat-catchers and private agencies.

Number of Visits to Vessels by Rat-Catchers	...	...	...	3,882
Number of Visits to Vessels by Rat-Searchers	...	...	...	4,734
Number of Visits to Quays, Sheds, etc., by Inspectors	...	...	...	623
Number of Visits to Quays, Sheds, etc., by Rat-Searchers	...	...	...	1,931
Number of Visits to Quays, Sheds, etc., by Rat-Catchers	...	...	...	19,191

**TABLE F**

**DERATTING CERTIFICATES ISSUED**

**Deratting Certificates and Deratting Exemption Certificates Issued During  
the Year 1966**

Number of Deratting Certificates issued after Fumigation with			After Trapping, Poisoning, etc.	Total	No. of Deratting Exemption Certificates issued	Total Certificates issued
H.C.N.	Sulphur	H.C.N. and Sulphur				
14	11	—	—	25	611	636

During the year 21 Rodent Control Certificates were issued to coastwise vessels.

## SECTION XIII

### INSPECTION OF SHIPS FOR NUISANCES

**TABLE G**  
INSPECTIONS AND NOTICES  
Year 1966

Nature and Number of Inspections					Notices Served		Result of Serving Notices	
					Statutory	Other Notices		
<b>Nature of Inspection</b>								<b>Nuisances Remedied</b>
Dirty Crew Quarters	...	...	—	none	36	36	36	„
Verminous Quarters...	...	...	—	„	861	840	840	„
Dirty Washhouses or W.C.'s	...	...	—	„	6	6	6	„
Foul Water Tanks	...	...	—	„	—	—	—	„
Foul Bilges	...	...	—	„	—	—	—	„
Foul or Choked W.C.'s	...	...	—	„	2	2	2	„
Accumulations of offensive refuse	...	...	—	„	4	4	4	„
Dirty Pantries and Galleys	...	...	—	„	20	20	20	„
Dirty Storerooms	...	...	—	„	14	14	14	„
Leaky Deckheads	...	...	—	„	2	2	2	„
Defective Heating System	...	...	—	„	1	—	—	„
Defective Bulkheads...	...	...	—	„	4	3	3	„
Defective Portlights, Skylights, etc.	...	...	—	„	7	7	7	„
Defective or Inadequate Ventilation	...	...	—	„	4	3	3	„
Defective Deck Covering	...	...	—	„	3	—	—	„
Gear Stowed in Crew's Quarters	...	...	—	„	2	2	2	„
Damp Quarters	...	...	—	„	—	—	—	„
Rat Harbourage	...	...	—	„	—	—	—	„
Defective W.C. Fittings	...	...	—	„	5	4	4	„
Defective Soil Pipes	...	...	—	„	—	—	—	„
Defective Waste Pipes or Scuppers	...	...	—	„	1	1	1	„
Defective Washing Facilities	...	...	—	„	4	2	2	„
Inadequate Lighting	...	...	—	„	—	—	—	„
Smoke Nuisances	...	...	—	„	41	40	40	„
W.C.'s discharging on Quay	...	...	—	„	9	9	9	„
Miscellaneous...	...	...	—	„	16	10	10	„
Number of Inspections					3,541			
Total					3,541	—	1,042	1,005 —



NATIONALITY OF SHIPS VISITED  
YEAR 1966

Nationality								Visits	Re-visits	Total
British	...	...	...	...	...	...	...	1,823	80	1,903
Dutch	...	...	...	...	...	...	...	258	8	266
German	...	...	...	...	...	...	...	227	7	234
Norwegian	...	...	...	...	...	...	...	209	6	215
Liberian	...	...	...	...	...	...	...	121	7	128
Danish	...	...	...	...	...	...	...	108	—	108
Greek	...	...	...	...	...	...	...	97	2	99
Spanish	...	...	...	...	...	...	...	86	5	91
Russian	...	...	...	...	...	...	...	75	1	76
Indian	...	...	...	...	...	...	...	52	14	66
Swedish	...	...	...	...	...	...	...	41	4	45
American	...	...	...	...	...	...	...	40	—	40
Finnish	...	...	...	...	...	...	...	36	—	36
Polish	...	...	...	...	...	...	...	30	1	31
Japanese	...	...	...	...	...	...	...	27	2	29
Pakistani	...	...	...	...	...	...	...	22	4	26
United Arab Republic	...	...	...	...	...	...	...	20	4	24
Panamanian	...	...	...	...	...	...	...	20	1	21
Sudanese	...	...	...	...	...	...	...	17	3	20
Argentine	...	...	...	...	...	...	...	16	2	18
French	...	...	...	...	...	...	...	16	2	18
Israeli	...	...	...	...	...	...	...	16	—	16
Irish Republic	...	...	...	...	...	...	...	16	—	16
Nigerian	...	...	...	...	...	...	...	14	—	14
South African	...	...	...	...	...	...	...	14	—	14
Italian	...	...	...	...	...	...	...	13	1	14
Kuwaiti	...	...	...	...	...	...	...	12	1	13
East German	...	...	...	...	...	...	...	10	—	10
Ghanaian	...	...	...	...	...	...	...	10	—	10
Lebanese	...	...	...	...	...	...	...	10	1	11
Belgian	...	...	...	...	...	...	...	9	—	9
Rumanian	...	...	...	...	...	...	...	9	—	9
Turkish	...	...	...	...	...	...	...	9	—	9
Yugoslavian	...	...	...	...	...	...	...	8	2	10
Moroccan	...	...	...	...	...	...	...	7	2	9
Swiss	...	...	...	...	...	...	...	7	—	7
Chinese	...	...	...	...	...	...	...	6	—	6
Brazilian	...	...	...	...	...	...	...	5	1	6
Faroese	...	...	...	...	...	...	...	4	—	4
Chilean	...	...	...	...	...	...	...	3	—	3
Icelandic	...	...	...	...	...	...	...	3	—	3
Uruguayan	...	...	...	...	...	...	...	3	—	3
Bulgarian	...	...	...	...	...	...	...	2	—	2
Cypriot	...	...	...	...	...	...	...	2	—	2
Persian	...	...	...	...	...	...	...	2	1	3
Burmese	...	...	...	...	...	...	...	1	—	1
Cuban	...	...	...	...	...	...	...	1	—	1
Ethiopian	...	...	...	...	...	...	...	1	—	1
Malagasy	...	...	...	...	...	...	...	1	—	1
Saudi Arabian	...	...	...	...	...	...	...	1	—	1
Thai	...	...	...	...	...	...	...	1	—	1
Totals	...	...	...	...	...	...	...	3,541	162	3,703

## INSPECTION OF DOCK PREMISES

Rebuilding and modernisation of premises in the entire port area is still proceeding.

The new dock shed at East Harrington has been completed and is in use and the new shed at Vittoria Dock Birkenhead is also completed. The administrative block at this dock is nearing completion. A new meat berth has been constructed at North Alexandra 2 with special facilities for meat inspection. Modernisation of the shed at South Alexandra 3 has taken place and reconstruction is also taking place at the North end of East Queens Dock, the South end of the Princes Dock and North Kings 2 Dock.

The permanent washplaces described in last year's report are now in use and appear to be much appreciated. Modernisation of dock latrines is continuing.

Modern equipment for both storing and removing refuse has been provided by the Mersey Docks and Harbour Board and is proving successful in reducing the number of nuisances from accumulated refuse. The following defects and nuisances were dealt with in dock premises.

Description of Premises	Defective or Inadequate					Structural Defects	Rat Harborage	Rat Infestation	Accumulated Refuse	Noxious Effluvia	Dirty Conditions	Verminous Conditions	Damp Conditions	Water Supply	Miscellaneous
	Lighting	Heating	Ventilation	W.C. Accommodation	Drainage										
Dock Sheds	—	—	—	—	—	—	7	60	20	—	9	—	—	—	—
Quays ...	—	—	—	—	—	—	7	5	23	—	2	—	—	—	—
Roadways ...	—	—	—	—	—	—	—	—	52	—	—	—	—	—	—
Canteens ...	—	2	2	1	6	4	2	15	2	—	29	—	—	4	28
Factories ...	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—
Warehouses	—	—	—	—	—	—	1	5	3	—	—	—	—	—	—
Latrines ...	—	—	—	2	—	—	—	—	—	—	15	—	—	—	—
Airport ...	—	—	—	—	—	—	—	5	—	—	—	2	—	—	—
Total ...	—	2	2	3	6	4	17	95	100	—	55	2	—	4	28



## **THE FOOD HYGIENE (DOCKS, CARRIERS, ETC.), REGULATIONS 1960**

During the year 178 ships arrived in the Port carrying consignments of "open food".

In each case the berth was inspected by a port health inspector prior to discharge and in no less than 77 cases the berths required cleaning and the moving or covering of other cargo. In three cases the proposed berths were found to be unsuitable.

### **New Mechanised discharge of Meat**

At No. 2 Alexandra Dock a great deal of reconstruction took place especially in the last few months of the year. A new shed has been built for the installation of a huge conveyor system which will allow meat and dairy produce to be transferred from the ship direct to waiting refrigerated vans, to rail wagons or to the adjacent cold stores. The only time any of this cargo will be handled to any extent will be by the food inspectors who have been allocated a centrally raised position for the purpose of examination. The inspectors will be able to select and have sent to them any required percentage of a consignment which after examination may be released to cold stores or sent for further examination. All checking will be electrically controlled and every package of cargo will be recorded. All data will be noted and filed by two computers on the ground level. It is hoped to start this new discharging method in February, 1967, and by the look of the present rate of construction this date will not be far out.

A full account in greater detail will be found in next year's report and will be accompanied by photographs of this new system.

## **SECTION XIV**

### **PUBLIC HEALTH (SHELLFISH) REGULATIONS 1934/48**

Warning notices that "Shellfish taken from this area are likely to be polluted and could cause serious illness to those consuming them" are erected at suitable sites on the Lancashire and Cheshire approaches to the shore on each side of the Mersey.

During the year these notices were re-issued. No cases of food poisoning or other sickness resulting from the consumption of shellfish were reported. No prosecutions were instituted.

## **SMOKE CONTROL**

### **Clean Air Act 1956. The Dark Smoke (Permitted Periods) (Vessels) Regulations 1958**

During 1966 the attention of the Master or Chief Engineer of 40 vessels had to be drawn to the above Regulations. In every case the nuisance was abated and no proceedings were instituted.

## **DOCK CANTEENS**

During the year 344 separate inspections were made and 95 defects noted and abated.

Canteens in poor sanitary condition at South West Float, South East Sandon, North Kings 2, North West Salhouse, North Herculanum and South West Canada Dock, have been demolished.

New dock canteens have been constructed at North West Huskisson, West Alexandra Dock and Vittoria Dock and further new canteens are nearing completion at North Kings 2 Dock and North West Float.

Canteens owned and operated by shipping companies for their dock employees maintained their usual high standard.

## **RADIOACTIVE MATERIALS**

All vessels visiting the Port and carrying this type of cargo were visited by a port health inspector.

Information is received from the Mersey Docks and Harbour Board concerning ships entering or leaving the port with this type of cargo, and giving the amount of radioactive or other potentially dangerous cargo to be loaded or discharged.

The amount of radioactive cargo, stowage, handling, destination, marking of packages, distance from crew accommodation and proximity to foodstuffs are noted.

In the event of spillage or damage temporary safety measures are instituted and appropriate authorities notified.

During the year 97 ships were visited, of these 75 were loading and 22 discharging cargo.



## SECTION XV

### MEDICAL INSPECTION OF ALIENS AND COMMONWEALTH IMMIGRANTS

Medical Officers holding Warrants of Appointment as medical inspectors of Aliens and Commonwealth Immigrants are:—

Professor Andrew B. Semple  
Dr. J. B. Meredith Davies  
Dr. A. J. Graham  
Dr. T. A. Conroy  
Dr. C. F. W. Fairfax  
Dr. S. M. Jamaludeen (died 27.6.66.)  
Dr. J. Udechuku  
Dr. D. Lowry.

No other staff are regularly engaged on this work, though the medical officers may be assisted by health visitors from the City staff when necessary. Normally, immigration officers refer to the medical officers any passengers who they have reason to believe may require examination under the Aliens Order or the Commonwealth Immigrants Act; a medical officer is therefore always present during the disembarkation of passengers.

#### Details of Aliens and Commonwealth Immigrants during 1966

##### Aliens

Total number of vessels carrying alien passengers	...	...	...	3,622
Number of vessels dealt with by the Medical Inspectors	...	...	...	100
Number of aircraft dealt with by the Medical Inspectors	...	...	...	—
Total number of aliens landed in the port	...	...	...	6,883
Number subjected to detailed examination by Medical Inspectors	...	...	...	16
Certificates issued by Medical Inspectors	...	...	...	3

##### Commonwealth Immigrants

Total number of Commonwealth Immigrants landed in the Port	...	...	...	3,754
Number medically examined	...	...	...	270
Certificates issued by Medical Inspectors	...	...	...	1

Medical inspection of alien and Commonwealth immigrant passengers is normally conducted either in the ship itself, or, in relation to aircraft, in the examination room at Liverpool Airport.

**SECTION XVI**  
**MISCELLANEOUS**  
**ANTHRAX—**  
**GOVERNMENT WOOL DISINFECTING STATION**

The Government Wool Disinfecting Station at Love Lane, Liverpool, 3, is concerned with the disinfection of hair, wool and hides so as to prevent the danger of anthrax. The disease is rarely if ever transmitted from man to man and contaminated articles may remain infective for years, if not treated.

Samples are taken of cashmere, camel hair, goat hair, horse hair, human hair and mohair before disinfection, and also afterwards to ensure that disinfection was complete. During the year 142 samples were taken. Of these, 57 were positive for anthrax bacilli and 85 were negative. All samples taken after disinfection were negative.

The countries from which material was imported are Afghanistan, China, France, Holland, Iceland, India, Iran, Iraq, Lebanon, Mongolia, Morocco, Oman, Pakistan, Syria, Turkey and U.S.A.

**Immunisation against Anthrax**

Immunisation against anthrax has been practised since 1958 at the Government Wool Disinfecting Station. There have been no cases of anthrax since. All the personnel at the Wool Station receive the primary course of three injections, the second of these being given six weeks after the first, and the third 20 weeks later. This is followed by an annual booster injection. The injections are carried out and the records are kept by a medical officer of this authority. In addition to the permanent staff at the Wool Station, other persons whose work involves proximity to infected material, for example, Ministry of Works employees, painters, maintenance men etc. are immunised. New employees at the Station receive their first injection within a few days of starting work.

During the year the number of injections given totalled 73.



## HEALTH EDUCATION

During this year lectures were given at Hatton Garden on three occasions to students from the William Rathbone Staff College on the work of the Port Health Authority and frequently groups of two or three students have been taken on visits to the dock estate where they were able to go aboard a ship or at least see the work involved in loading and discharging different types of cargo.

Many talks on the work of the Port Health Authority, were given to members of the Townswomen's Guild, usually in the evenings, augmented by colour slides. The talks have always been very well received especially since the variety of work done by this Authority was not fully appreciated, and great interest was always displayed particularly when photographs of different types of imported food were shown. Talks were also given to County Secondary Schools, and a series of lectures is given each year to students of the Nautical Catering College on the importance of hygiene and medical care at sea.

## SPECIAL VISITORS

Public Health Inspectors on World Health Organization Fellowships from Ireland, Mauritius, Nigeria and Trinidad visited the Port Health Authority, some for a few days only, but more usually for about two weeks, and one inspector from Paraguay stayed in Liverpool for eight weeks, his visit being organized by the British Council.

At the end of September, the Minister of Health, the Right Honourable Kenneth Robinson, M.P., during a visit to Liverpool, called at the Port Health Office and discussed aspects of the work undertaken. Later, on 21st November, Dr. Geffen, Dr. Brothwood and Mr. Quinton, of the Ministry of Health, accompanied by Mr. Vernon Jones, the Principal Regional Officer of the Ministry of Health, paid a visit as part of an enquiry into the medical aspects of the Immigration Service.

## FOOD INSPECTION

### GROUNDNUTS IN SHELL

The following is a summary of the examinations for the presence of Aflatoxin in groundnuts in shell imported during the year.

Country of origin	Number of consignments	Quantity	Action Following Sampling
Brazil ...	3	400 x 28-lb bags	Released.
Brazil ...	1	415 x 112-lb bags	Rejected. Aflatoxin present. Later released for wild bird food. This consignment had been refused entry into Canada because of its Aflatoxin content.
Brazil ...	1	2,000 x 28-lb bags	Rejected. Sent for animal food.
Eritrea ...	24	24,800 x 28-lb bags	5 satisfactory, released. 19 rejected. Of these, 16 have not yet been disposed of, a total of 12,000 x 28-lb bags. Three have been partly disposed of, a total of 19,108 x 28-lb bags. 10,060 bags released for animal food.
Gabon ...	2	3,621 bags (3,121 bags x 28-lbs and 500 x 88-lb bags)	Satisfactory, released.
Gambia ...	1	40 x 112-lb bags	Aflatoxin less than 0.05 p.p.m. but consignment damaged by insects and larvae. Released afterwards for purposes other than human consumption.
Libya ...	5	35,589 x 28-lb bags	Satisfactory, released.
Mexico ...	1	550 x 112-lb bags	Satisfactory, released.
Sudan ...	8	2,407 bags (approximately 97½ tons)	Satisfactory, released.

### Contaminated loose-collected groundnut kernels for Confectionery Trade

During the course of the year 23,469 lbs of contaminated kernels were rejected for human consumption and the majority sent for animal food, but the more grossly contaminated were destroyed. This figure shows an increase of 12,000 lbs over last year's figure.



### BRAZIL NUTS (BULK CARGO)

During the year, 19 consignments of Brazil nuts were imported, and samples of these were taken to detect the presence of Aflatoxin. This sampling was not done on a formal basis, as is the case with groundnuts.

In an endeavour to obtain some useful information on the production of Aflatoxin, which as mentioned in a previous report is a toxic substance produced by a mould, *Aspergillus flavus*, two experimental sampling trials were carried out during the year. Before going into the details of these a short account of the method of export will be of interest.

These nuts when they are harvested in Brazil are left only a short time in the pod, which is about as big as a coconut. After this they are conveyed first in wicker baskets and then in canoes down the tributaries of the Amazon. The canoes take the nuts to river steamers which go to the loading port. There they are discharged, sorted, cleaned and graded in sizes and put into lighters—steel barges with sliding covers. The nuts remain in the lighters for a variable time—a few days to several weeks. If the lighters are used for storage for this longer period the nuts are turned from time to time. The depth of the lighters is fifteen feet and the top two or three feet are turned.

The problem was to try and find some information about when, where and under what conditions the Aflatoxin was produced. Samples were to be taken from cargo detailed each of six bills of lading in the ship *Boniface*, two in Brazil (from the lighter mentioned above), two during the voyage and two just before arrival in Liverpool. (A bill of lading is a paper signed by the master of a ship, by which he makes himself responsible for the safe delivery of the goods specified therein.) The nuts referred to in the bill of lading are contained in separate definable spaces in the ship. The samples consisted of nuts taken at random and one of each pair of samples was heated and the other left unheated. All samples were put in polythene bags and were kept in the ship's refrigerator until collected on arrival here.

It was hoped that it might be discovered whether the Aflatoxin was produced during the voyage—this would be likely if the study of the results showed no Aflatoxin in samples taken in Brazil, a small amount of Aflatoxin in samples taken during the voyage and heavy contamination on arrival in Liverpool. Another possibility was that heat might inhibit the

growth either by an action on the mould (*Aspergillus flavus*) or on the Aflatoxin, or by reducing the moisture content.

In the event most of the samples were negative for Aflatoxin, so that no useful conclusions could be drawn. Some previous consignments have of course been found negative on sampling. The fact that the voyage took place in summer, the vessel having arrived in July, might have been of some importance due to the influence of temperature and humidity.

### **DESICCATED COCONUT FROM CEYLON**

It is believed that the ultimate has been reached in the bacteriological standard of desiccated coconut from Ceylon. This year 1966, 600 samples were sent for bacteriological reports and not until November was a positive result reported, in this instance *Sal. ferlac*, which has never been one of the designated types. This represents an infection rate of 0.166% a truly excellent figure and even better than the two previous years which had been thought very good indeed.

### **MEAT AND MEAT PRODUCTS**

#### **Meat from Argentina**

During the year seven consignments totalling 3,239 carcasses of frozen lamb arrived at Liverpool. On examination all these consignments were found to be infected by caseous lymphadenitis and the affected pieces were rejected as unfit for human consumption. In all, 2,540 lbs of meat were unfit.

#### **Meat from Australia**

There were several consignments of meat imported from Australia and these included eight consignments of boneless brisket beef totalling 1,214 cartons. All of these were found on examination to be infected with onchocerciasis, a round worm infection of cattle. Man cannot be infected as a result of eating such meat but the infected portion is unfit for human consumption. A large number of pieces had to be rejected and the total weight of these was 770 lbs.

A consignment of 561 cartons of boneless mutton totalling 33,660 lbs was found on examination to be in a state of decomposition and unfit for human consumption. It was released for sterilization and use as pet food.



Seven consignments totalling 1,032 cartons of frozen beef livers were imported during the year. Examination of these showed that the lymphatic glands had been removed from some of the livers, thus constituting an infringement of the Public Health (Imported Food) Regulations 1937. In some of these consignments the glands were missing from more than half of the livers examined. Final decisions have not yet been taken on the disposal of all of these consignments but some have been released for purposes other than human consumption, and in several cases a 100% examination was carried out.

Another consignment which arrived from Australia consisted of 1,305 cartons of boneless mutton which was affected by decomposition and caseous lymphadenitis. It was necessary to reject 1,187 pieces of meat totalling 11,453 lbs.

### **Meat from South West Africa**

A consignment of 34 cartons of frozen beef livers was found on examination to be affected by decomposition, and in addition, the lymphatic glands had been removed. The consignment was rejected as unfit for human consumption but was released to be sterilized and canned as pet food.

### **Meat from United States of America**

Of the consignments of frozen beef kidneys from U.S.A., two consignments totalling 658 cartons were shown on examination to be decomposing, and it was necessary to reject 798 kidneys totalling 787 lbs from one consignment and 20,839 kidneys (67% of the consignment) from the other.

### **Pasteurised Canned Ham**

The shocking waste of good and expensive food permitted by importers because of failure to carry out the instructions printed on the labels of these tins is to be deplored. On every tin of this kind of meat from Yugoslavia there is advice that these goods should be kept under refrigeration and other tins from Holland and Belgium have the advice "keep in a cool place". Yet in spite of this no action is taken to carry out these instructions, the goods are carried in non-refrigerated ships, and stored in ordinary warehouses, sometimes for months. It must be known that pasteurisation does not exclude all food poisoning organisms and only by proper cold storage is growth of these prevented and freedom from the danger of food poisoning

organisms ensured. It is the tins which look all right and are sold that are the most dangerous because they are not yet blown and only when opened or the contents consumed does the true nature of the food reveal itself. It is to be hoped that in the near future legislation will ensure that this commodity is handled in the proper manner as advised by the exporter.

During the year the following goods were found unfit and rejected.

<i>From Yugoslavia—Canned Pressed or Chopped Ham</i>			
2,859 tins of ham	...	...	14,751 lbs
5 tins of shoulders	...	...	42 lbs
195 tins of gammons	...	...	2,161 lbs
<i>From Holland</i>			
155 tins of ham	...	...	1,550 lbs
<i>From Belgium</i>			
11 tins of ham	...	...	157 lbs

No information is available of the number of persons who may have been affected throughout the country by eating food so handled, which should never have reached the public.

### OFFICIAL CERTIFICATE PROCEDURE

During the year, as in previous years, a number of consignments arrived unaccompanied by a proper Official Certificate. In some cases no Certificate was present; in others it had become damaged or detached; some meat or meat products arrived from countries which have no Official Certificate, and from which therefore meat cannot be imported.

Details are given below:—

#### Meat from Argentina

The vessel *Rio Dulce* arrived in December from Argentina having on board a consignment of 500 cartons of canned ox tongues. It was found that the Official Certificates on some of the cartons bore the number 7, which is the number of an establishment withdrawn from the approved list. On some of these cartons the figure 7 had been over stamped by the figure 2. Other cartons bore the figure 2 only.

The consignment was detained and the cartons sorted. Fifteen cartons were found to have the number 7. All the cans, 90 in number, were examined and were found to have embossed on each can an Official Certificate in which the figure 2, indicating an acceptable establishment, had been inserted. The consignment was therefore released.



### **Meat products from Australia**

In March a consignment of edible oleo-beef-stearine arrived from Australia, in the vessel *Theseus*. The drums did not bear the Official Certificates of the country of origin. The consignment was released after a written undertaking had been received that it would be used for purposes other than human consumption.

In July, two other consignments of 300 drums of the same substance did not bear the Official Certificates and were dealt with in the same way.

A consignment of 244 tons of oleo-beef-stearine carried in bulk in ship's tanks arrived from Australia in the vessel *Cretic* in November. No Official Certificate accompanied the consignment, which was therefore detained. On receipt of a written guarantee that it would be used only for purposes other than human consumption, the consignment was released.

### **Meat products from Bulgaria**

Two consignments, one of 50 cartons of canned veal with green beans, and one of 200 cartons of canned veal with green peas, arrived from Bulgaria in the vessel *Maltasian* in April. According to the relevant circular of the Ministry of Agriculture, Fisheries and Food, canned meats are excluded from Official Certificate recognition in the case of Bulgaria, and so these two consignments could not be allowed into this country. Arrangements were made for re-exportation.

### **Meat and Meat products from China**

In October a consignment arrived from China via Hong Kong in the vessel *Menestheus*. It consisted of 10 cases described as "cases of canned preserved meat" in unlabelled cans, and was part of a consignment of 99 cases described as "Chinese Foodstuffs". No Official Certificates accompanied the cans of meat products. On investigation it was found that most of the consignment consisted of poultry meat or fish and this was released. Only four of the cans contained a meat product and these were released on receipt of a written guarantee that the contents were for the private use of the importer and would not be sold for human consumption.

A consignment of 1,050 drums of lard arrived from China in June in the vessel *Astyanax*. Only a very small percentage of the drums were found on inspection to have the proper Official Certificates. Many drums had no Certificate but it was evident from marks on them that Certificates had in

fact been affixed. The consignment was detained and a search of the ship's hold from which the drums had been discharged was carried out. A large number of damaged and dirty certificates were found. It was evident that the consignment had been correctly certificated before exportation from China and so the consignment was released. The consignee was advised that in future steps should be taken to prevent a recurrence of this type of incident.

### **Meat products from France**

A consignment of four cartons of canned chestnut stuffing arrived in July in the vessel *Palmelian* from France. The ingredients of the stuffing included pork but no Official Certificate had been affixed to the packages. The consignment was detained but later released on receipt of a written undertaking that the chestnut stuffing would not be sold for human consumption, but would be used only for trade sampling purposes. The importer also agreed to take the matter up with the shipper to prevent a recurrence.

### **Meat products from Italy**

A consignment of 311,376 kilos of lard in bulk, which arrived from Italy in October in the vessel *Mimma*, was not accompanied by an Official Certificate. The importers undertook to detain the consignment until clarification of the situation was received. After a few days the appropriate Certificates arrived and the consignment was released.

Two consignments, one of 10 cases the other of 25 cartons of salami sausage arrived in April from Italy in the vessel *Palmelian*. No Official Certificates had been affixed to the packages. The consignment was re-exported to Italy.

### **Meat from Japan**

A consignment of 10 cartons of canned sliced bacon arrived in September in the vessel *Tantalus* from Japan. The Official Certificate previously recognised for the importation of meat and meat products from Japan was revoked on 4th May 1965 and at present there is no Official Certificate recognised for that purpose. The consignment was therefore detained. A letter was later received from a director of the importing firm stating that the consignment had been imported for his personal use and was not



intended for sale. Although the amount concerned seemed to be rather large the consignment was released for delivery to his home, and the Medical Officer of Health of the area concerned was informed.

### Meat from Malta

A consignment of 79 bales of frozen forequarters pork, arrived in the vessel *Ixion* in July from Malta. There is no recognised Official Certificate in respect of meat arriving from Malta and so the consignment was returned.

## EDIBLE ANIMAL FAT CONVEYED IN BULK

Importations of lard in bulk from the United States of America have continued to fall in quantity during 1966 as they did during 1965.

An increase in the importations of this commodity from various sources in Europe during the year provided some compensation for the fall off in the American trade. New sources of supply which appeared during the course of the year include lard from Poland and Holland. The table below illustrates the change in our sources of supply which have taken place in the course of the past three years.

Origin				U.S.A.			Europe		
Year	...	...	...	1964	1965	1966	1964	1965	1966
Number of Ships	...			74	43	11	5	39	54
Number of Consignments				262	132	73	8	75	104
Tonnage	...	...	...	136,250	72,883	38,035	2,774	30,412	41,940

Two ships which arrived from New Zealand discharged four bulk consignments, totalling 446 tons of edible animal fat.

No difficulties occurred during the course of the year in respect of bulk cargo from the United States of America and New Zealand but difficulties were experienced by the importation of bulk lard from Europe.

These difficulties were, as was experienced in the year 1965, in connection with the official certification of these bulk cargoes, and the subject of comment and recommendation in our Annual Report for that year.

No change in the relevant regulations has since been made but it is understood that ministerial officials have been on a fact-finding tour of

Continental and British ports in connection with it. This matter was one of those discussed with the Minister of Health during his visit to the Port of Liverpool.

## **IMPORTED EGG AND EGG PRODUCTS**

### **Australian Frozen Liquid Whole Egg**

A consignment of 4,000 28-lb tins arrived in July from Australia in the vessel *Surrey*. This was the fifth consignment of frozen liquid egg to arrive at Liverpool from Australia since the Liquid Egg (Pasteurisation) Regulations 1963 became operational on 1st January, 1964. Samples were taken of the 13 batches of which the consignment was composed. All of these samples satisfied the requirements of the alpha-amylase test, devised to show whether or not pasteurisation has been carried out efficiently. On bacteriological examination however, it was found that salmonella typhimurium was present in six of the samples. Further samples were taken from the affected batches and a total of 26 samples was submitted to the Public Health Laboratory, 13 being from the original tins and 26 from other tins. The results showed salmonella present in 7 of the 13 repeat samples, and 14 of the 26 new samples. Following these investigations the batches which had not shown evidence of infection were released. The remainder were detained pending satisfactory arrangements for their re-pasteurisation. Further samples were taken on the detained batches and the alpha-amylase test was repeated. The Australian Egg Board have found that re-pasteurisation cannot be carried out in this country owing to the processing of a glut of egg products and they have therefore instructed that this consignment be returned to Australia to be dealt with in that country.

During the summer a message was received from the British Egg Marketing Board, in London, that a consignment of frozen pasteurised egg was due to arrive at this port. This consignment totalling 10,000 cans had been refused entry into the United States of America because sampling showed the presence of salmonellae. After arrival here the consignment was released to a London cold store for investigation by an expert in bacteriology.

### **Egg and Egg Products from the U.S.A.**

As stated above, 10,000 cans of frozen pasteurised egg were returned to the United Kingdom as being infected with Salmonella but 13 consignments containing 666 packages of dried egg albumen which originated in



America were imported. Bacteriological reports were obtained on 49 samples and two of these were found to contain salmonella cerro. The consignment of 120×56-lbs. cartons which they represented were sent for further heat treatment under the supervision of the Medical Officer of Health of the Borough of Greenwich.

### **Egg and Egg Products from China**

A consignment of frozen liquid whole egg comprising 3,120 tins was made up of 26 separate batches from each of which a sample was taken. All satisfied the alpha-amylase test and were found free from salmonellae. Nineteen consignments of dried egg made up into 1,070 packages were also imported and of 90 samples none was found positive.

### **Egg and Egg Products from Malta**

Three samples were taken, because of the presence of egg, from 20 cartons of packeted egg nidi which is rather like a Chinese egg noodle, and contains some cereal as well as egg. All were found clear of salmonellae.

## **CRUSTACEA**

In the past year 54 consignments of crustacea, comprising frozen prawns, frozen shrimps, langostinos and lobster tails were landed at this Port. A total of 309 samples was taken and most of these samples satisfied our standards. One or two importers were sent warning letters to ensure improvement of their goods.

One consignment from Cuxhaven, Germany, in November, left much to be desired and it was necessary to reject a part of it. The consignee undertook to take the matter up with the supplier in Germany.

The following table shows the main details of these importations:

Country of Origin	Number of Consignments	Action following sampling
Chile ... ..	21	Consignment released
Japan ... ..	20	" "
U.S.A. ... ..	4	" "
China ... ..	3	" "
Hong Kong ... ..	1	" "
Canada ... ..	1	" "
India ... ..	1	" "
Saudi Arabia ... ..	1	" "
Bahrain ... ..	1	" "
Germany ... ..	1	Part of consignment rejected (see above).

## FRUIT AND VEGETABLES

### **Levelited Butter Beans from Madagascar**

No difficulty was encountered during the course of the year 1966 in securing the maintenance of a satisfactory standard in the work of removing the insecticide from the beans before their release for sale, and 3,443 bags, discharged from 12 ships, were delivered to a local establishment where they were cleaned under the supervision of the Port inspectorate. This figure represents an increase of 8,844 bags over the quantity dealt with during the year 1965. Only a small quantity was released to canneries outside the jurisdiction of this Authority for washing under supervision before canning.

### **Potatoes from Egypt**

On 22nd June, the *Cap Bon* came to Garston Dock with a consignment of 63,000 bags of Egyptian potatoes, destined for Widnes. On inspection the cargo was found to be in an advanced state of decomposition. Many of the bags were in a hot and steamy condition and a large number had burst. The cargo in every hold seemed to be affected.

However the ship was moved to another berth where grabs could work and when the centre of each hold was lifted away many of the bags in the wings were still intact. These were put in slings, landed into lorries and taken to Widnes where they were opened and the contents sorted under the supervision of the local public health inspector there. By 28th June, all the holds were open and the dockers shovelled the remaining decomposing mess into skips for disposal. From the total cargo of 63,000 bags, 39,019 bags totalling 750 tons were found satisfactory after sorting in Liverpool and Widnes, and the total weight of rejected cargo was 645 tons, which was disposed of on local tips.

Four consignments of celery totalling 3,005 crates, from the vessel *American Traveller* from the United States of America, were rejected because they were in a state of decomposition. They were destroyed at a local tip.

A consignment of 950 bags of celery in the vessel *Seigerland* from Dublin arrived in October. The celery was in polythene bags which prevented any evaporation and was transported in unrefrigerated containers. This consignment had missed one ship and the next ship was delayed by bad



weather. The whole consignment was rejected because of decomposition and was delivered to a local tip for destruction.

A consignment of grapefruit arrived in August from South Africa in the vessel *S.A. Tzaneen*. It was noticed on discharge that a number of the cartons were affected by decomposition and diplodia, and 336 cartons were rejected on the quay. The remainder were sorted in a warehouse. Following this, 10,123 additional cartons were rejected and destroyed at a local tip.

The vessel *Monte Anaga* arrived from the Canary Islands in February, with a consignment of tomatoes, many of which had on them a white powdery deposit. Six samples were taken and sent to the City Analyst who reported that the deposit appeared to be flowers of sulphur, which is harmless. They were free from poisonous metals, preservatives and insecticides. The distributing agent's representative, on being informed of the findings, undertook to take the matter up with the exporters, because of the likelihood of unfavourable consumer reaction.

The vessel *Ulysses* from Egypt arrived towards the end of the year, having on board a consignment of 11,132 cases of mandarines, most of which were found on examination to be decomposing, and it was necessary to reject 8,170 cases as unfit for human consumption. These were delivered to a local tip.

A consignment of oranges on the vessel *Memphis* from Israel, was found in January to be contaminated by oil, and 160 cases of oranges totalling 14,400 lbs were rejected and buried in a local tip.

## **COLOURING MATTER IN FOOD REGULATIONS 1957**

During the year there were several contraventions of the above Regulations and details of these are given below:

In March a consignment of chilli pickles in the vessel *Chindwara* from Pakistan was re-exported because on sampling it was found to contain an oil soluble red azo-type dye, which is a non-permitted colour.

The vessel *City of London* from Pakistan arrived in July having on board a consignment of mixed pickles, chilli, oil and madras mango pickles. Samples of these pickles were taken and submitted to the City Analyst whose report showed that each of the three samples contained prohibited dye of the

type Oil Orange E or Sudan Red or both. The consignment was therefore rejected and was subsequently returned to Pakistan.

This vessel also had a consignment of lemon oil pickle which was found on examination to contain a non-permitted colouring matter Oil Orange E. It was therefore rejected and also returned to Pakistan.

A consignment of 20 bags of chilli powder from India arrived in the vessel *State of Uttar Pradesh* and was re-exported as it was found to contain two prohibited colouring matters, Oil Orange E and a Sudan Red Colour.

Contraventions were found in two consignments of 100 and 200 cases of hot mango pickle (48 × 12-oz. jars). The first was found to contain Sudan Red and the other red oil soluble azo dye, and the consignments were sent back to Bombay.

A sample was taken from a consignment of 10 bags of chilli powder, and another from a consignment of 50 cases of canned special pickle. The first sample was found to contain an added non-permitted colouring matter (an oil soluble Orange dye of the azo class), and the second sample contained two non-permitted coloring matters (Orange E and Sudan III). Both these consignments were therefore rejected and the first re-exported to Pakistan. The second consignment is still lying under detention awaiting re-exportation.

Twenty cases of green mango pickle and 100 cases of canned special mixed pickle were also sampled and in the first consignment non-permitted colouring matter was found. The mixed pickle contained 740 parts per million of tin, while the recommended amount for this metal is 250 parts per million, but no prohibited colouring was found in it. The consignments were rejected and the green mango pickle was re-exported to Kuwait, but the canned special mixed pickle is still lying under detention awaiting re-exportation.

Fifty cans of mixed pickle, each weighing  $17\frac{1}{2}$  kilos and the same amount of mango pickle, came into the port in July. Samples were taken of each consignment and that of the mixed pickle was found to contain Sudan Red and 280 parts per million of tin. The mango pickle also had this colouring matter and 220 parts per million of tin. The presence of prohibited colouring matter alone caused rejection of both consignments and they await re-exportation.



## **PRESERVATIVES IN FOOD REGULATIONS 1962**

### **Prunes from U.S.A.**

A consignment of 500 cartons of prunes in the vessel *Pacific North West* from the United States of America arrived in February and was found on sampling to contain a trace of sorbic acid. This substance is a non-permitted preservative as far as prunes are concerned. It was considered that although technically this was a contravention of the Regulations, the small amount found did not constitute a hazard to public health. A warning letter was sent to the consignee regarding future importations of the brand of prunes concerned.

A small consignment of prunes of a different mark also contained a trace of sorbic acid and was dealt with in the same way.

### **Prunes from Chile**

In September a consignment of 1,700 boxes of dried prunes from Chile was landed from the vessel *Salaverry*. These boxes were wired together in pairs and on landing looked quite clean and normal. It was found however on examination that some of the prunes were mouldy. No cause could be found. The whole consignment was therefore examined and the sound prunes re-packed. A total of 156 boxes of prunes was rejected as unfit for human consumption and destroyed at a local tip.

## **DAMAGED CARGOES**

The vessel *Hororata* arrived from New Zealand in August having on board a consignment of 99,817 carcasses of frozen lamb. During the discharging of this consignment, inspection showed that a large number of carcasses from a particular cargo space were found to be in a decomposing condition. The carcasses affected were released for purposes other than for human consumption. It was subsequently discovered that the damage was not due to an inherent fault in the commodity, but that it had occurred during the voyage. The rest of the consignment was released for human consumption, but a large number of the carcasses had to be subjected to ozonization to remove a slight taint resulting from the decomposing carcasses.

The vessel *Newfoundland* arrived in March from the United States of America having on board a consignment of pork. This pork originated

from Northern Ireland and was imported into the U.S.A. but for some reason was shipped from the United States of America back to Liverpool. Inspection showed that as the pork had not been wrapped, contamination of the surfaces had occurred, and re-conditioning by trimming was necessary before the pork could be released for human consumption. Suitable arrangements were made for this purpose. The damaged trimmings were disposed of for pet food.

The vessel *Mimma* arrived from Italy in October, having on board a consignment of 692 tons of lard in bulk. During the discharge of the lard an odour of vinyl acetate was noticed and enquiries revealed that a pipe which had been used in connection with loading of that substance had also been used for discharging the lard, without having been thoroughly cleansed. Approximately 12 tons of lard had thus become contaminated and this amount had to be rejected as unfit for human consumption. It was released to a processor on guarantee that it would not be used for human consumption.

A consignment of 179 forequarters of beef arrived in December, 1965, from Uruguay on the vessel *Aragon*. During preparation for processing it was found that a high percentage of the quarters was affected by internal decomposition (bone taint). This is a condition which is not detectable on inspection of uncut hard frozen quarters of beef, but which if present, is found on cutting the forequarters for sale or manufacture. The affected meat amounted to 53 forequarters and these were released to a local processor to be used for purposes other than human consumption.

Six consignments totalling 2,325 cartons of fresh apples from the United States of America from the vessel *American Manufacturer* were found to be damaged by heat and smoke. On enquiry it was discovered that a fire had occurred in the vessel in an overseas port. The apples were unfit for human consumption and were destroyed at a local tip.

The vessel *City of Hull* arrived from Mombasa in August having on board a consignment of 3,740 chests of tea which had been damaged by fire. These were inspected and 2,470 of the chests were removed to a local warehouse for further examination. Subsequently the contents of 2,004 chests were found to be damaged by fire, smoke and water. It was necessary to reject as unfit for human consumption 717 chests of the tea. The contents of the remaining 1,287 chests were only partly damaged and were re-conditioned



and packed in new chests. A total of 90,766 lbs of tea was rejected as being wet, mouldy and smoke and fire damaged. The rejected tea was removed to a farm where it was ploughed into the land as a fertilizer.

As a result of the same fire which caused the above-mentioned damage, 189 bags of oriental food were also damaged so badly as to be fit only for animal feeding.

A consignment of 2,729 chests of tea arrived from Argentina in the vessel *Queensbury* in December. A number of the chests were wet and stained, and this was found to be due to liquid which had seeped from wet hides which had formed part of the ship's cargo. The damaged chests were removed to a local warehouse for examination and the unaffected tea was re-packed in clean containers. The contents of 151 chests were rejected as unfit for human consumption. Approximately half of these were destroyed at a local tip and the remainder were re-exported.

In February, it was noticed that a number of cartons of canned stewed steak were contaminated by sulphuric acid, which had soaked through the cartons and affected the tins. These tins were part of a consignment landed from the vessel *Oranmore* in January 1964. On inspection, 1,440 tins were found to be unfit for human consumption and were delivered to a local tip.

A consignment of 170 tons of groundnut oil from the vessel *Makeni Palm* from Nigeria in March, became accidentally contaminated by faecal matter, and was rejected as unfit for human consumption. It was released under guarantee to be used for purposes other than human consumption.

The vessel *Oswestry Grange* arrived in December, 1965, with a cargo of wheat from Argentina. During the discharging of this cargo it was found that some of it was affected by a chemical taint. Enquiries showed that on a previous voyage a quantity of iso-octonal, a chemical used in the plastics industry, had been carried in the ship. Although the space involved had been cleaned, the wheat which was later stored in the same space became tainted. It was rejected and was released for use as animal or poultry food. The total quantity involved was about 93 tons.

The vessel *Bitola* arrived from Italy in September having on board a consignment of 2,175 cartons of canned tomatoes. The contents of a large number of cartons were landed at the quay in bulk. The cartons had

disintegrated due to spillage from burst cans, and 52,512 cans were rejected as unfit because they were either blown or burst. A further 1,081 cartons which had remained intact were examined and in these 3,600 cans were blown or burst and were therefore rejected.

A consignment of canned tomato puree arrived towards the end of 1965 from Bulgaria. On discharge a large number of cartons were noticed to be stained. They were therefore removed to a local warehouse pending a full examination. This was completed in April, 1966, when almost half of the cans were rejected because they were blown or burst. The sound tins were released and the rejects were destroyed at a local tip.

Two consignments of canned stoneless plums arrived in Liverpool on 29th November and 17th December. Examination showed both to be in a very poor condition with blown, burst and leaking tins. Both consignments had to be fully examined and in all a total of 731 cartons each 6 x 3 kilos, was rejected from a total of 1,000 cartons in the first consignment and 1,500 cartons in the second.

In April a large number of cartons from a consignment of 648 cartons of canned solid pack apples was found to be stained by their contents. Full examination at first revealed 186 cartons to be blown and burst and the remainder were released with the recommendation that they should be used at once. This was not done and in December further examination was done and a further 303 cartons were rejected.

In February the vessel *Accra* from Nigeria arrived at Liverpool, and a small quantity of dried fish was found, when examined on the quay, to be infested by live hive beetles and larvae. Fourteen cartons were rejected as unfit for human consumption and were released to a local processor for conversion into fertilizer.

A consignment of biscuits of English origin was rejected in the U.S.A. and returned to Liverpool in the vessel *American Traveller* in March. These biscuits were rejected by the U.S.A. Inspection Authority on the grounds that traces of rodent hair had been found in the samples which they had examined. The consignment was returned to the manufacturers in another part of the country and the Health Authorities in that area agreed to investigate the circumstances of the production of the biscuits.

The vessel *Arbitrator* arrived from Demerara in June, having on board a consignment of 44,000 bags of yellow crystal sugar. Inspection showed that



a number of the bags had been contaminated by a powdery substance (barium oxide), which had been stowed on the same quay and some of which had been spilled in handling.

The Liverpool City Analyst reported that soluble barium salts are highly toxic and that barium oxide is fairly soluble. On account of this it was necessary to reject 43 bags, totalling 4,816 lbs., as unfit for human consumption. The rejected bags were sent to a local tip.

### **IMPORTATION OF FOOD OTHER THAN FOR HUMAN CONSUMPTION**

675 consignments comprising 571,595 packages of frozen raw material (meat and offal) were imported during 1966, and were delivered to approved processors to be sterilized and canned for sale as pet food.

The above figures include 1,294 packages of frozen kangaroo meat, 1,435 packages of frozen horse meat, and 2,385 packages of frozen whale meat.

The importation of frozen horse and kangaroo meat did not present the same degree of difficulty during 1966, as was experienced during the previous year when a number of attempts were made to import such material with a view to selling it without first submitting it to sterilization, on the ground that it was fit for human consumption.

The reasons for this reduction in the degree of difficulty were firstly that fewer consignments of this material were imported during 1966, and secondly that no attempts were made to evade the need for sterilization in respect of consignments which were landed in Liverpool during the year.

The action taken during 1965, which was the subject of comment in the Annual Report for that year, may account for this.

It may be remembered that in the Annual Report for 1965 this Authority asked for the introduction of legislation to control the importation and sale of canned pet food and by some means to make the diversion of such consignments for human consumption impossible. Below are details of an incident which occurred in Liverpool which may help to strengthen this request.

On the 19th January, 1966, while engaged in dealing with some detained food in a warehouse, a port food inspector noticed that certain of the

warehouse employees were engaged in stripping the labels from a large number of cans of fish intended for sale for pet food and labelled to that effect. The consignment consisted of 7,500 cartons, each containing 24 × 1-lb cans of fish, and had arrived in this country from South Africa on 20th November. The warehousekeeper could not give any explanation as the labels were being removed on the instructions of the importer.

The inspector obtained two sample tins and on opening one of them the contents were seen to consist of a dark coloured pulp which had a strong fishy odour. It was considered that it would not have been possible to confuse this material with fish normally sold in cans for human consumption, and it would therefore be unlikely that an attempt would be made to sell it in canned form for that purpose. It was possible, however, that it could be incorporated into a product such as a fish cake and so sold for human consumption.

The importers stated that the existing labels would infringe a copyright of another firm in this country, by reason of the similarity to their label and they had therefore arranged for the labels to be stripped off before making a sale, and re-labelling would be carried out to suit the purchaser's requirements. It was made clear to them that they must instruct any purchaser that the product was not to be used for human consumption, and that they must obtain from the purchaser a satisfactory assurance that it would be sold as pet food, and this was agreed.

On 26th January, information was received from the owners of the consignment that they intended to sell the consignment for human consumption to a fish paste manufacturer and that the material contained in the 1-lb cans consisted of chopped pilchards of similar quality and prepared in accordance with the same standards appertaining to Public Health, as the contents of the A10 size cans which they had been importing for some years for sale to fish paste manufacturers for human consumption. As a glut of pilchards on the market had resulted in a surplus, after consignments for human consumption had been completed, these had been canned as pet food. The South African packer then gave a written assurance of suitability for human consumption, and it was suggested that samples of



this material would show that the pilchards were fit for distribution as such. A report was, however, received from the City Analyst, which read as follows:—

“The cans contained fish broken into small pieces free from excess metallic contamination. The fish contained fish offals, roe, fins and green matter resembling plankton presumably ingested by the fish, hence probably stomach contents.” The bacteriological report showed the material to be sterile. The consignment was re-labelled and disposed of for pet food.

It is not possible to examine the large quantities of raw and processed material which now arrive annually for sale as pet food, in order to ascertain whether it is fit or unfit for human consumption, and consequently consignments imported on this basis escape examination.

It must be appreciated that fish is not the only commodity that can be diverted as described above. Canned meat, say, from a knacker's yard, dehydrated meat in packets and drums are frequently imported as pet food. They are often accompanied by a document showing sterilization has been done and, as pet food, they do not require an official certificate and can avoid the Staining and Sterilization Regulations. It follows that after clearing the port there is no legislation to prevent diversion for human consumption. Legislation is necessary to make this procedure illegal and there might be added some prohibition to pet food being found in a food manufacturers' premises.

### **EXCHANGE OF INFORMATION**

Information concerning positive findings, following examination of imported food, was circulated to other seaports and copies sent to the Ministry of Health and the Ministry of Agriculture, Fisheries and Food.

Quarterly returns are made to the Ministry of Agriculture, Fisheries and Food giving full details of unsound imports of meat and meat products and also of contraventions of the Official Certificate procedure. Copies of any details relating to unsound Australian meat or meat products are sent to the Commonwealth Veterinary Officer, Australia House, London.

The following table shows the total quantities of unsound foodstuffs either destroyed or utilised under supervision during the year 1966:—

	Tons	Cwts.	Qrs.	Lbs.
Beef, Mutton, Pork and Veal ... ..	71	—	—	—
Canned Goods ... ..	251	7	3	21
Fruit and Vegetables ... ..	1,268	5	3	26
Cereals ... ..	2,543	11	1	7
General (Lard, Coconut, Butter, etc.) ...	831	15	3	17
Total ... ..	4,966	1	—	15

A total of 1 ton 10 cwts. 2qrs. 23 lbs. of unsound sugar (loose-collected, sweepings, etc.) was dealt with during the year, and suitably disposed of to local refiners for reconditioning, by refining.

The following tables show the variety and numbers of samples submitted to the Public Health Laboratory Service and the City Analyst during the year 1966.

#### Samples relating to imported food

##### *Submitted to Public Health Laboratory Service*

Beef, canned, corned ... ..	6
Crustacea, frozen:	
Langostinos ... ..	44
Lobster tails ... ..	7
Prawns, cooked ... ..	230
Prawns, uncooked ... ..	5
Shrimps ... ..	90
Desiccated Coconut ... ..	600
Egg, dried, albumen ... ..	49
Egg, dried, whole ... ..	72
Egg, dried, yolk ... ..	7
Egg, frozen liquid whole ... ..	86
Egg, nidi (macaroni) ... ..	3
Horseflesh, boneless... ..	12
Mutton, boneless ... ..	14
Pet food (fish), canned ... ..	6

##### *Submitted to the City Analyst*

Apples, dried ... ..	1
Beef, canned, corned ... ..	7
Beetroot, dehydrated ... ..	1
Brazil nuts in shell ... ..	102



Chestnut paste	...	...	...	...	...	...	1
Chestnuts	...	...	...	...	...	...	10
Chilli powder	...	...	...	...	...	...	20
Coconuts in shell	...	...	...	...	...	...	1
Curry powder	...	...	...	...	...	...	2
Desiccated Coconut	...	...	...	...	...	...	2
Fresh fruit:							
Lemons	...	...	...	...	...	...	2
Oranges	...	...	...	...	...	...	3
Tomatoes	...	...	...	...	...	...	6
Green beans, canned	...	...	...	...	...	...	2
Groundnut kernels	...	...	...	...	...	...	2
Groundnuts in shell	...	...	...	...	...	...	119
Onions, kibbled	...	...	...	...	...	...	1
Onion powder	...	...	...	...	...	...	1
Pet food (fish) canned	...	...	...	...	...	...	1
Pickles...	...	...	...	...	...	...	65
Potatoes, instant dehydrated	...	...	...	...	...	...	2
Prunes, dried	...	...	...	...	...	...	5
Raisins...	...	...	...	...	...	...	2
Scabbard fish	...	...	...	...	...	...	1
Tea	...	...	...	...	...	...	2
Turmeric powder	...	...	...	...	...	...	1
Walnut kernels	...	...	...	...	...	...	1
Walnuts in shell	...	...	...	...	...	...	1

**Samples relating to investigations following food-poisoning and other illness within the port**

*Submitted to the Public Health Laboratory Service*

Ships' drinking water	...	...	...	...	...	...	182
Food, various...	...	...	...	...	...	...	14

**In addition to the above, the following samples were submitted for bacteriological examination**

Faeces	...	...	...	...	...	...	181
Surface swabs (equipment)	...	...	...	...	...	...	21

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I desire again to express my appreciation of the valuable assistance received from H.M. Collector of Customs and staff, Board of Trade, the Mersey Docks and Harbour Board and their officers, river pilots, and the various shipping companies who have co-operated with the Port Health Authority in the maintenance of Public Health and the prevention of disease in the port. The Consular Bodies have at all times given courteous assistance.

ANDREW B. SEMPLE,

Medical Officer of Health,

Liverpool Port Health Authority.

